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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,518	07/28/2003	Gregory A. Ehlers	68,180-007	4284
26753	7590	12/27/2005		
ANDRUS, SCEALES, STARKE & SAWALL, LLP 100 EAST WISCONSIN AVENUE, SUITE 1100 MILWAUKEE, WI 53202			EXAMINER SHECHTMAN, SEAN P	
			ART UNIT	PAPER NUMBER

2125

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/628,518

Applicant(s)

EHLERS ET AL.

Examiner

Sean P. Shechtman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 11-16, 20, 53-56, 60-65, 85-92, 96, 97, 99, 100 and 102 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-16, 20, 53-56, 60-65, 85-92, 96, 97, 99, 100 and 102 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 11-16, 20, 53-56, 60-65, 85-92, 96, 97, 99, 100, and 102 are presented for examination. Claims 11, 13, 53, 85, 88, 97, and 102 have been amended. Claims 1-10, 17-19, 21-52, 57-59, 66-84, 93-95, 98, 101 and 103 have been cancelled.

#### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the varying the offset from the effective setpoint as a function of the selected comfort level scenario and the current characteristic of energy must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. Objections withdrawn in light of the amendment filed October 3<sup>rd</sup> 2005.

***Claim Objections***

4. Objections withdrawn in light of the amendment filed October 3<sup>rd</sup> 2005.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 53-56, 60-65, 99, 100, and 102 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 53 requires the limitation of the offset varying from the effective setpoint as a function of the selected comfort level scenario and the current characteristic of energy. While figure 3C of the instant drawings shows the offset varies as a function of a characteristic of energy and paragraph 322 teaches an economy profile set to economical comfort, wherein the economy profile may be used to control the HVAC system and/or other devices based on characteristics of cost or availability of power, wherein each profile has an associated setpoint offset, the examiner respectfully submits that the original application fails to provide for varying the offset from the effective setpoint as a function of the selected comfort level scenario and the current characteristic of energy. Disclosure in an application that merely renders the later-claimed invention obvious is not sufficient to meet the written description requirements of 35 U.S.C 112,

first paragraph. *Lockwood, v. American Airlines, Inc.* 41 U.S.P.Q.2d. 1961, 1966 (Fed. Cir. 1997).

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 11-14, 53, 54, 61-65, 86-97, 99-102 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,924,486 to Ehlers (See IDS filed 4/20/04).

Referring to claims 11 and 53, Ehlers clearly teaches a system for managing environmental comfort at a site, the site having a temperature and environment management system (Abstract), the temperature and environment management system being supplied with energy from an energy provider (Abstract; Col. 3, lines 8-12; Col. 19, lines 1-8), comprising:

a humidity sensor for sensing humidity at the site and a temperature sensor for sensing air temperature at the site (Fig. 3, element 8); and

a thermostatic device in communication with the energy provider to receive a current cost of energy (Figs. 6-7; Col. 8, lines 36-61; Col. 16; Fig. 5), the thermostatic device being coupled to the humidity sensor and the temperature sensor and configured for receiving input from a user (Fig. 3, element 30; See also Col. 32, lines 38-55), the input including a temperature setpoint (Col. 9, line 66 - Col. 10, line 14) and a selection of one of a plurality of comfort level scenarios, wherein each of the comfort level scenarios relate to a willingness to pay for energy at the expense of comfort, the thermostatic device for determining an effective setpoint as a function of the temperature setpoint and the sensed humidity (Col. 7, lines 16-37; Col. 12, line 47 - Col. 13, line 4; See also Col. 32, lines 38-55) and for controlling the temperature and environment

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management system (Col. 14, lines 12-19) to maintain air temperature at the site within a deadband defined by the effective setpoint and an offset from the effective setpoint (Col. 7, lines 37-52; Col. 15, line 64 - Col. 16, lines Fig. 5), wherein the offset is based on the selected comfort scenario and the current cost of the energy (Col. 7, lines 26-30; Fig. 5, Col. 16, lines 5-16).

Ehlers clearly teaches input interface 14 allows user input of temperature setpoint (Col. 9, line 66 – Col. 10, line 13). Ehlers clearly teaches input function 15 provides interface for temperature and humidity sensors (Col. 10, lines 15-30). Ehlers clearly teaches process function reads sensor inputs and user data and based on the data, a setpoint temperature variance is determined to provide the proper control to meet user requirements, including a deadband and minimum and maximum temperature range (Col. 12, lines 47-67). Ehlers clearly teaches output provides control of heating and cooling equipment based on said process function (Col. 14, lines 12-19).

Referring to claim 12, Ehlers teaches the system and method above, wherein the thermostatic device includes a processor (Col. 7, lines 16-30), a communications channel coupled to the temperature and environment management system (Col. 7, lines 53-58), a display coupled to the processor (Col. 7, lines 36-44), and a control panel coupled to the processor for receiving the input from the user (Col. 7, lines 1-10).

Referring to claims 13 and 54, Ehlers teaches the system and method above, wherein the thermostatic device receives a current cost of the energy and displays the cost on the display (Col. 16; Fig. 5; Col. 30, lines 30-35).

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Referring to claim 14, Ehlers teaches the system and method above, wherein the display and control panel are implemented in a graphic user interface (Col. 13, line 62 - Col. 14, line 10; Col. 14, lines 65-67).

Referring to claim 61, 86, 100, Ehlers teaches the method above, further including the step of allowing the user to define a plurality of occupancy modes, each occupancy mode having a user defined temperature setpoint and selected comfort level scenario (Col. 4, lines 47-50; Col. 21, line 56 - Col. 22, line 3; Col. 21, lines 48- Col. 22, lines 29; Col. 33, lines 60 – Col. 34, lines 3).

Referring to claim 62, 87, Ehlers teaches the method above, wherein each occupancy mode includes a default comfort level scenario (Col. 4, lines 47-50).

Referring to claim 63, 88, Ehlers teaches the method above, wherein *at least one* occupancy mode has an associated recovery time (Col. 39, lines 48-60), the recovery time being a desired time period of the transition between a previous occupancy mode and the *at least one* occupancy mode (Col. 29, line 25 - Col. 30, line 24; Col. 33, line 60 - Col. 34, line 3).

Referring to claim 64, 89, Ehlers teaches the method above, including the step of allowing the user to set *at least one* start time for the *at least one* occupancy mode (Col. 29, lines 33-35).

Referring to claim 65, 90, Ehlers teaches the method above, including the step of transitioning from the previous occupancy mode to the *at least one* occupancy mode at a time equal to the *at least one* start time minus the recovery time (Col. 29, lines 25-35; Col. 39, lines 21-23 and 48-60).

Referring to claim 84, Ehlers teaches the above, wherein the characteristic of energy is the cost of energy (See Fig. 5, horizontal axis).

Referring to claim 85, 99, Ehlers teaches the above, wherein the plurality of levels of energy cost include low, medium, high and critical, wherein the offset from the effective setpoint is determined for each of the cost levels of energy within each scenario (Fig. 5; Col. 9, lines 35-50; Col. 10, lines 7-13).

Referring to claim 91, 101, Ehlers teaches the above, wherein the comfort level scenarios are related to the user's willingness to pay for the energy (Col. 20, lines 28-35).

Referring to claim 92, 102, Ehlers teaches the above, wherein the plurality of comfort level scenarios include at least maximum savings, balanced savings and comfort, and maximum comfort (Col. 17, lines 4-62; Col. 3, lines 13-24; Col. 17, lines 35-39; Col. 18, lines 13-20; Col. 16, lines 33-35).

Referring to claims 93-95, Ehlers teaches the above, wherein the comfort level scenario is selected by either the energy provider or the user (Col. 20, lines 28-35) and the user selects the temperature setpoint (Col. 9, line 66 - Col. 10, line 14).

Referring to claims 96 and 97, Ehlers teaches the above, wherein the current characteristic of energy is displayed using at least one of a color, a size, and a number of symbols, to provide an indication of the relative cost of energy (Col. 14, line 65 – Col. 15, line 9, Col. 15, lines 44-58; Col. 18, lines 55-65).

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.



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7. Claims 15, 16, 20, 55, 56, 60, 98, 103 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,924,486 to Ehlers as applied to claims 11-14, 17-19, 53, 54, 57-59, and 61-65 above, and further in view of U.S. Pat. No. 3,181,791 to Axelrod.

Referring to claims 16, 56, 98, 103, Ehlers teaches the system and method above, wherein the thermostatic device tracks user adjustments to the temperature setpoint and responsively modifies *at least one of* a predetermined number of degrees in the predetermined percentage increase or decrease in relative humidity to adjust the effective setpoint for each mode (Col. 12, lines 47-67; Col. 14, lines 12-19; Col. 32, lines 38-55).

Referring to claims 20 and 60, Ehlers teaches the system and method above, wherein the temperature and environment management system includes *at least one of* a humidifier and a de-humidifier (Col. 10, lines 15-30; Col. 13, lines 6-22; Col. 14, lines 20-28), wherein the thermostatic device controls the *at least one of* a humidifier and a de-humidifier as function of the effective setpoint, the predetermined offset (Col. 38, lines 6-21).

Referring to claims 20 and 60, Ehlers teaches all the limitations set forth above, however Ehlers fails to teach the thermostatic device controls the *at least one of* a humidifier and a de-humidifier as function of the effective setpoint, the predetermined offset, and the sensed temperature and humidity.

Referring to claims 15 and 55, Ehlers teaches all the limitations set forth above, however Ehlers fails to teach the system and method above, wherein the effective setpoint is equal to the temperature setpoint plus a predetermined number of degrees per a predetermined percentage decrease in relative humidity for cooling applications and the effective setpoint is equal to the

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temperature setpoint minus a predetermined number of degrees per a predetermined percentage increase in relative humidity for heating applications.

However, Axelrod teaches analogous art, wherein a system for managing environmental comfort at a site, the site having a temperature and environment management system comprises: a humidity sensor for sensing humidity at the site and a temperature sensor for sensing air temperature at the site (Fig. 1, elements 20 and 30); and an thermostatic device coupled to the humidity sensor and the temperature sensor for receiving input from a user, the input including a temperature setpoint (Col. 3, lines 31-43; Col. 5, lines 30-33), the thermostatic device for determining an effective setpoint as a function of the temperature setpoint and the sensed humidity (Col. 3, lines 44-70) and for controlling the temperature and environment management system to maintain air temperature at the site with a deadband defined by the effective setpoint and an offset (Fig. 1; Col. 2, line 37- Col. 3, line 8), wherein

referring to claims 15 and 55, Axelrod teaches the system and method above, wherein the effective setpoint is equal to the temperature setpoint plus a predetermined number of degrees per a predetermined percentage decrease in relative humidity for cooling applications and the effective setpoint is equal to the temperature setpoint minus a predetermined number of degrees per a predetermined percentage increase in relative humidity for heating applications (Fig. 1; Col. 3, lines 44-70); and wherein

referring to claims 20 and 60, Axelrod teaches the system and method above, wherein the temperature and environment management system includes *at least one of* a humidifier and a dehumidifier (Fig. 2, element 75), wherein the thermostatic device controls the *at least one of* a

humidifier and a de-humidifier as function of the effective setpoint, the predetermined offset, and the sensed temperature and humidity (Fig. 1; Col. 2, line 37- Col. 3, line 8).

Therefore it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Ehlers with the teachings of Axelrod.

One of ordinary skill in the art would have been motivated to combine these references because Axelrod teaches an automatic comfort control system responsive to a plurality of mathematical definitive conditions for regulating an environment to any one of the definitive conditions in accordance with the actual conditions sensed therein. Furthermore, Axelrod teaches an improved control system responsive to a plurality of variables for providing regulation to any one of a plurality of preferred coordinate variable conditions and for maintaining a substantially constant effective temperature in a controlled environment. Further still, Axelrod teaches an improved system for maintaining said substantially constant effective temperature by controlling both temperature and humidity within a sensed environment in a manner so as to utilize the temperature and humidity control equipment to maximum efficiency by minimum usage. Further still, Axelrod teaches a comfort zone computer for controlling the humidity control system and temperature control system in accordance with the sensed temperature and humidity (Col. 1, lines 39-72).

### ***Response to Arguments***

Applicant's arguments filed October 3<sup>rd</sup> 2005 have been fully considered but they are not persuasive.

8. Referring to claim 11, in response to applicant's argument that claim 11 requires a thermostatic device to determine an effective setpoint as a function of the temperature setpoint

input by the user and the sensed humidity received from the humidity sensor, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

9. Referring to claim 11, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the comfort level scenario is selected by the user based upon the user's willingness to pay for energy at the expense of comfort; an offset calculated from the effective setpoint; the use of the sensed humidity to modify the temperature setpoints to determine effective setpoints; the input from the humidity sensor used to adjust the temperature setpoint; allowing the user to select one of a plurality of comfort level scenarios that define the user's willingness to pay for energy as a function of the temperature offset as the price of energy increases or decreases; control of temperatures within a premise based on the modification of the temperature setpoint to the effective setpoint based upon the sensed humidity) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

10. Applicant argues that Ehlers fails to teach a thermostatic device for determining an effective setpoint as a function of the temperature setpoint and the sensed humidity. The examiner respectfully disagrees.

Ehlers clearly teaches input interface 14 allows user input of temperature setpoint (Col. 9, line 66 – Col. 10, line 13). Ehlers clearly teaches input function 15 provides interface input for

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temperature and humidity sensors (Col. 10, lines 15-30; See also Col. 32, lines 38-55). Ehlers clearly teaches that all input functions collect data from input devices and “pass the data to function 21 for storage” (Col. 10, lines 46-48). Ehlers clearly teaches process function reads function 21 for the sensor inputs and user data and based on the data, a setpoint temperature variance is determined to provide the proper control to meet user requirements (Col. 12, lines 47-67). The examiner respectfully submits that a setpoint temperature variance determined to provide the proper control to meet user requirements based on data from the user input of temperature setpoint and temperature and humidity sensors is a thermostatic device for determining an effective setpoint as a function of the temperature setpoint and the sensed humidity.

Ehlers also clearly teaches “An additional sensor input for this embodiment may be the humidity sensor. Indoor humidity data will be combined with indoor temperature to determine a comfort zone limit for varying the temperature set point based on user comfort. The user will enter the level of comfort desired as a percentage of the ideal comfort level and the temperature-humidity index will be used to modify the set point to reduce cost while reflecting this comfort level. A value of 100% will equal the exact user-defined or learned temperature set point as the center of a range of temperatures of approximately the same comfort level where the limits of the range are defined by the temperature-humidity index. A value of 0% will equal the temperature at which, for that humidity level, most people would feel uncomfortable. If the user selected a 50% comfort level, then the temperature will be half way between the two defined temperatures. The range of temperatures will vary dynamically as the humidity level changes within the premise” (Col. 32, lines 38-55).

The examiner respectfully submits that humidity data used to determine a comfort zone limit for varying the temperature set point based on user comfort, wherein a comfort level of 100% will equal the exact user-defined set point as the center of a range of temperatures of approximately the same comfort level is a thermostatic device for determining an effective setpoint as a function of the temperature setpoint and the sensed humidity.

11. Applicant argues that Ehlers fails to teach the offset is based on the selected comfort level scenario and the current level of energy cost. The examiner respectfully disagrees.

Ehlers clearly teaches options, after a setpoint temperature variance is determined to provide the proper control to meet user requirements based on data from the user input of temperature setpoint and temperature and humidity sensors, to further vary “the set point” to improve user comfort while controlling costs (Col. 12, lines 47-66). Ehlers clearly teaches a user may enter a minimum and maximum desired temperature range for at least one energy unit cost point (Col. 12, lines 47-66). The examiner respectfully submits that a user allowed to enter a minimum and maximum desired temperature range for at least one energy unit cost point as an option after a setpoint temperature variance is determined to provide the proper control to meet user requirements based on data from the user input of temperature setpoint and temperature and humidity sensors, to further vary “the set point” to improve user comfort while controlling costs is the offset based on the selected comfort level scenario and the current level of energy cost.

The examiner also respectfully submits that varying the temperature set point based on user comfort, wherein the user will enter the level of comfort desired as a percentage of the ideal comfort level and the temperature-humidity index will be used to modify the set point to reduce

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cost while reflecting this comfort level (Col. 32, lines 38-55), is the offset based on the selected comfort level scenario and the current level of energy cost.

12. Applicant argues that Ehlers fails to teach the thermostatic device allows the user to define a plurality of occupancy modes, each occupancy mode having a separate user defined temperature setpoint and selected comfort level scenario. The examiner respectfully disagrees.

Ehlers teaches the cost control occupancy sensing of figure 3 (Col. 21, lines 48- Col. 22, lines 29) permits the system to generate greater savings by allowing greater use of the dead-band during periods when the premise is vacant without jeopardizing the comfort of the occupant. Ehlers goes on to teach how the system uses a no occupancy temperature set point for use when the premise is empty and an occupied setpoint when the premise is occupied (Col. 33, lines 60 – Col. 34, lines 3). The examiner respectfully submits that the vacant and occupied use of the dead-band with occupied and non-occupied setpoint without jeopardizing the comfort of the occupant is a thermostatic device that allows the user to define a plurality of occupancy modes, each occupancy mode having a separate user defined temperature setpoint and selected comfort level scenario.

13. Applicant argues that Ehlers fails to teach that the plurality of comfort level scenarios includes at least maximum savings, balanced savings and comfort, and maximum comfort.

The examiner respectfully submits that an option for minimum and maximum degree settings for comfort along with an indicator for pricing that indicates the lowest possible prices (Col. 17, lines 35-39), is maximum savings.

The examiner respectfully submits that entering a maximum range and/or dead-band that users are willing to tolerate either in the form of an offset to the set point or an actual minimum

or maximum degree setting and a maximum price cutoff that the system is to work within while managing both the economics and the environmental comfort conditions (Col. 18, lines 13-20), is balanced savings and comfort.

The examiner respectfully submits that the system will operate as any other thermostat by maintaining the temperature within the range specified by the occupant (Col. 16, lines 33-35), is maximum comfort.

### *Conclusion*

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571) 272-3754.

The examiner can normally be reached on 9:30am-6:00pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



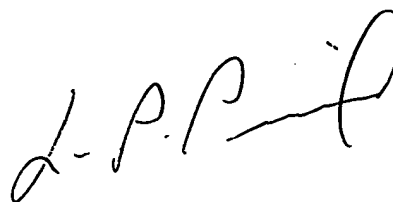
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Sean P. Shechtman

December 18, 2005

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A handwritten signature in black ink, appearing to read "L. P. Picard". The signature is fluid and cursive, with a large loop at the end.

**LEO PICARD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100**